REMARKS

Claims 1-19 remain in this application. Claims 1 and 8 are currently amended. Claims 2-7 and 9-15 are original. Claims 16-19 are new. No new matter has been introduced.

Claim 1 has been amended by replacing the limitation of "detecting a brightness data of a data signal provided by the data driver; and providing a gamma signal according to the brightness data to the data driver" with "detecting a brightness data of a data signal provided by the data driver; classifying the brightness data into a predetermined brightness group; providing a group of predetermined gamma signals according to the predetermined brightness group; selecting a gamma signal from the group of predetermined gamma signals according to the brightness data; and providing the gamma signal to the data driver." Support for the amendment is found in the specification, e.g. at page 5, line 28 to page 6, line 14, in Fig. 1, and in a portion of the limitations recited in original Claim 8.

Claim 8 has been amended by replacing the limitation of "a gamma decision circuit for providing a predetermined gamma signal of the predetermined brightness group to the data driver" with "a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal; and a gamma decision circuit for selecting one of the gamma voltage outputting circuits to provide the corresponding predetermined gamma signal of the predetermined brightness group to the data driver." Support for the amendment is found in the specification, e.g. at page 5, line 28 to page 6, line 14 and in Fig. 1, wherein "a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal and a gamma decision circuit for selecting one of the gamma voltage outputting circuits to provide the corresponding predetermined gamma signal of the predetermined brightness group to the data driver."

Claims 16-19 have been newly added. Support for this amendment is found in the specification, e.g. at page 2, lines 26-28.

Claim rejections
35 U.S.C. 102(b)

Claims 1 and 7-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al. (U.S. 2003/0025718 A1). Applicant respectfully traverses the 35 U.S.C. 102(b) rejections for at least the following reasons.

Claim 1, as amended, recites a method for dynamic gamma adjustment of an LCD having a data driver and a gate driver, comprising the following steps:

detecting a brightness data of a data signal provided by the data driver;

classifying the brightness data into a predetermined brightness group;

providing a group of predetermined gamma signals according to the predetermined brightness group;

selecting a gamma signal from the group of predetermined gamma signals according to the brightness data; and

providing the gamma signal to the data driver.

Applicant respectfully assert that throughout Mori, the steps of *classifying the brightness data into a predetermined brightness group, providing a group of predetermined gamma signals according to the predetermined brightness group, selecting a gamma signal from the group of predetermined gamma signals according to the brightness data, and provide the selected gamma signal to the data driver* are all not disclosed.

Referring, e.g., to Fig. 1 and paragraphs 38-46 of Mori, Mori only discloses the steps of detecting a mean brightness S6 of the video images (paragraph 38, lines 6-10 of Mori), inputting the mean brightness S6 to the system control unit 21, and calculating and outputting a brightness control value from the system control unit 21 (paragraph 44, lines 1-7 of Mori). The brightness control value is, for example, a brightness suppression coefficient for adjusting the light emission

brightness of the display panel in accordance with the mean brightness of the video image. Then, the system control unit sets the brightness multiplier corresponding to the brightness suppression coefficient with respect to the signal processing unit 7 (paragraph 44, lines 8-13 of Mori). The signal processing unit 7 functions as an adjusting means and subjects the video image signal S4 read from the frame memory in accordance with the brightness multiplier to arithmetic operation to generate the display signal S10, to thereby adjust the display brightness of the display panel 1 (paragraph 46 of Mori).

According to the above brightness adjusting method disclosed by Mori, it is clear that none of the steps of *"classifying the brightness data into a predetermined brightness group," "providing a group of predetermined gamma signals according to the predetermined brightness group," "selecting a gamma signal from the group of predetermined gamma signals according to the brightness data,"* and *"provide the selected gamma signal to the data driver"* are disclosed by Mori. Thus, the method for dynamic gamma adjustment of an LCD as recited in the amended Claim 1 is clearly different from the brightness adjusting method disclosed by Mori.

For this reason alone, Applicant believes that Claim 1 is allowable over the cited reference. Insofar as Claim 1 is allowable, Claims 2-7 and 16-17, all dependent from Claim 1 and its related claims, including every claimed element thereof, and are also allowable on their own merits in claiming additional elements not recited in Claim 1.

Claim 8, as amended, recites a circuit for dynamic gamma adjustment of an LCD having a data driver and a gate driver, comprising:

a brightness sampling circuit for detecting a brightness data of a data signal provided by the data driver;

a brightness classifying circuit for classifying the brightness data into a predetermined brightness group;

a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal; and

a gamma decision circuit for *selecting one of the gamma voltage outputting circuits to provide the corresponding* predetermined gamma signal of the predetermined brightness group to the data driver.

At page 3, lines 8-21 of the Office Action, Examiner proposes that Mori discloses a circuit for dynamic gamma adjustment of an LCD as recited in Claim 8. However, Applicant respectfully points out that Mori does not teach, disclose, or suggest *a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal* as recited in the amended Claim 8.

Referring, e.g., to Fig. 1 and paragraphs 38-46 of Mori, Mori only discloses that the mean brightness S6 generated by mean brightness detecting unit 33 is inputted to the system control unit 21, the system control unit 21 calculates and outputs a brightness control value, e.g. the brightness suppression coefficient. Then, the system control unit sets the brightness multiplier corresponding to the brightness suppression coefficient with respect to the signal processing unit 7, and the signal processing unit 7 functions as an adjusting means and subjects the video image signal S4 read from the frame memory in accordance with the brightness multiplier to arithmetic operation to generate the display signal S10. Thus, the brightness adjusting circuit disclosed by Mori does not comprise *a plurality of gamma voltage outputting circuits respectively providing a predetermined gamma signal.* In addition, since Mori does not disclose a plurality of gamma voltage outputting circuits, Mori, similarly, does not disclose the gamma decision circuit (mapping to the signal processing unit 7 of Mori as pointed out by Examiner) *selecting one of the gamma voltage outputting circuits to provide the corresponding predetermined gamma signal of the predetermined brightness group to the data driver.*

Furthermore, referring, e.g., to Fig. 4(b) and 4(c) and paragraphs 44 and 46 of Mori, the brightness multiplier disclosed by Mori is **only a value set corresponding to the brightness suppression coefficient** and is **used during the arithmetic operation to generate the display**

signal S10. Thus, the brightness multiplier disclosed by Mori is not a brightness classifying circuit for classifying the brightness data into a predetermined brightness group.

For this reason alone, Applicant believes that Claim 8 is allowable over the cited reference. Insofar as Claim 8 is allowable, Claims 9-15 and 18-19, all dependent from Claim 8 and its related claims, and including every claimed element thereof, are also allowable on their own merits in claiming additional elements not recited in Claim 8.

New claim

The new claims 16 and 18 recite, in part, "the brightness data is detected by sampling only a portion of a single frame". Applicant believes that it is clear that this limitation is not taught or suggested by the cited references.

The new claims 17 and 19 recite, in part, "the brightness data is detected by sampling several frames". Applicant believes that it is clear that this limitation is similarly not taught or suggested by the cited references.

Conclusion

For the reasons as described above, Applicant believes that Claim 1 is allowable over the cited references. Insofar as Claim 1 is allowable, Claims 2-7 and 16-17, all dependent from Claim 1 and its related claims, including every claimed element thereof, are also allowable on their own merits in claiming additional elements not recited in Claim 1. Moreover, for the reasons as described above, Applicant believes that Claim 8 is allowable over the cited references. Insofar as Claim 8 is allowable, Claims 7-15 and 18-19, all dependent from Claim 8 and its related claims, including every claimed element thereof, are also allowable on their own merits in claiming additional elements not recited in Claim 8.

Furthermore, none of the prior art references cited by the Examiner, including those relied upon for rejection in combination with Mori, whether taken alone or in combination with

any other reference, including but not limited to Mori, teaches or suggests the features of Applicant's invention found lacking above with respect to independent claims 1 and 8.
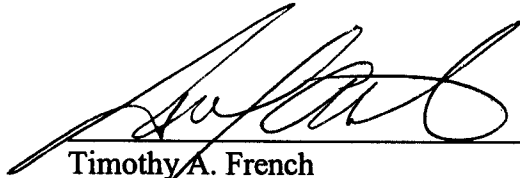
Therefore, withdrawal of the rejections and allowance of the claims, as now amended, are respectfully requested. Applicant has made every effort to place the present application in condition for allowance. It is therefore earnestly requested that the present application, as a whole, receive favorable consideration and that all of the claims be allowed in their present form.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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